

**Read Me**  
(31 January 2006)

Draft versions of the Unified Facilities Criteria (UFC) and AutoCAD drawings will be posted to this site. Content to be posted includes:

- UFC 3-401-01: Utility Monitoring & Control Systems
- UFC 3-401-02: DDC for HVAC & Building-Level Controls
- AutoCAD drawings for UFGS-15951 & UFGS-13801 (A/E/C CADD Std 2.0 compliant)
- AutoCAD drawing Instructions

Additional information is contained in HQUSACE Engineering Construction Bulletins 2004-11 “*Utility Monitoring & Control Systems (UMCS) and Direct Digital Control (DDC) Criteria Update*” and 2005-17 “*LonWorks®, BACnet® and Building Automation Systems Planning*” which can be obtained at:

<http://www.hnd.usace.army.mil/techinfo/ECbull.htm>

If you have a need for information or guidance that is not yet posted please contact:

Dave Schwenk. 1-800-USA-CERL, x7241,  
([david.m.schwenk@erdc.usace.army.mil](mailto:david.m.schwenk@erdc.usace.army.mil))  
or Joe Bush. 1-800-USA-CERL, x4433  
([joseph.bush@erdc.usace.army.mil](mailto:joseph.bush@erdc.usace.army.mil))

**Change Record:**

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31 January 2006:

- 1) Removed “Draft UFC Text” folder and created separate folders for each UFC
- 2) Added UFC 3-401-02 content:
  - a. Chapter 1: Introduction
  - b. Chapter 2: Architecture
  - c. Appendix B: CLD Tutorial
  - d. Appendix D: LonWorks Technology Overview
- 3) Added UFC 3-401-01 content:
  - a. Chapter 2: Architecture
  - b. Chapter 3: IP Networking Tutorial

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25 July 2005:

- 1) Added updated *Points Schedule Instructions* and *Symbols/Legend Drawings* in M-00X: Index, Symbols/Legend and Sequences zip file
- 2) Removed Point Schedule Instruction WORD files

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18 July 2005:

- 1) Posted UFC 3-401-02 Chapter 5 (excerpted through Points Sched Desc)
- 2) Posted Point Schedule Instruction WORD files.

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05 May 2005:

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- 1) Posted UMCS ALARM ROUTING SCHEDULE drawing M-651e1
  - 2) Posted UMCS RISER DIAGRAM drawing M-651a1
  - 3) Posted SCHEDULING SEQUENCE drawing M-601d1
  - 4) Posted ALARM GENERATOR AND ALARM HANDLING SEQUENCE drawing M-602d1
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20 APRIL 2005:

- 1) Updated Points Schedule Instructions
    - a. all contractor instructions are now in ALL CAPS
    - b. edited content for accuracy and consistency with Point Schedule drawings and with specifications
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7 APRIL 2005:

- 1) Updated drawing M-613f1
    - a. column labeled "CPT NAME" is now "nci/CP NAME"
    - b. column labeled "IO TYPE" is now "I/O TYPE"
    - c. under "ALARM CONDITION" column for row SA-P, the alarm condition should say: "\* SP IS MORE THAN 20% ABOVE OR BELOW SA-P-SP"
    - d. under "ALARM CONDITION" column for row SA-T, the alarm condition should say: "10 DEG F", NOT "37 DEG F". (Similarly, SI units layer should be "6 DEG C")
  - 2) Updated drawing M-002, Added to ABBREVIATIONS AND ACRONYMS
    - a) nci NETWORK CONFIGURATION INPUT
    - b) CP CONFIGURATION PROPERTY
    - c) SNVT STANDARD NETWORK VARIABLE TYPE
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20 DECEMBER 2004:

- 1) Updated drawings posted
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13 OCTOBER 2004:

- 1) Added note use of on draft drawings
  - 2) Added zip files of DRAFT AutoCAD Drawings
  - 3) Added AutoCAD Drawing User's Guide
  - 4) Added Points Schedule Instructions
  - 5) Added Project Implementation Summary from UFC 3-401-02
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1 OCTOBER 2004:

- 1) Added READ ME FIRST
  - 2) Added UMCS-DDC System Overview
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